FIGURE 1

```
|                                                              |
|          Figure 1: Template Filling            |           |
|                                                              |
|   1. read news article                         |           |
|   2. parse                                                  |
|   3. recognize proper names; standardize them              |
|   4. determine co-reference (optional)                     |
|   5. fill in template                          |           |
|   6. augment template using databases                      |
|      and derived values                        |           |
|                                                              |
```

FIGURE 2

```
|                                                              |
|            Figure 2: Building the Stock Predictor            |
|                                                              |
|   1. cluster templates into similar groups          |
|   2. look up changes in stock price                 |
|      at appropriate delays from announcement              |
|   3. estimate the probability of change being             |
|      predicted by the template;                     |
|      check statistical significance                 |
|                                                          |
```

FIGURE 3

Figure 3: Using the Stock Predictor

0. build predictor per figures 1 and 2
1. read online news story
2. fill template per method in figure 1
3. predict probabilty of stock price of volatility
   changing by looking up average changes for the
   template   in the past
4. trade (long or short) based on prediction